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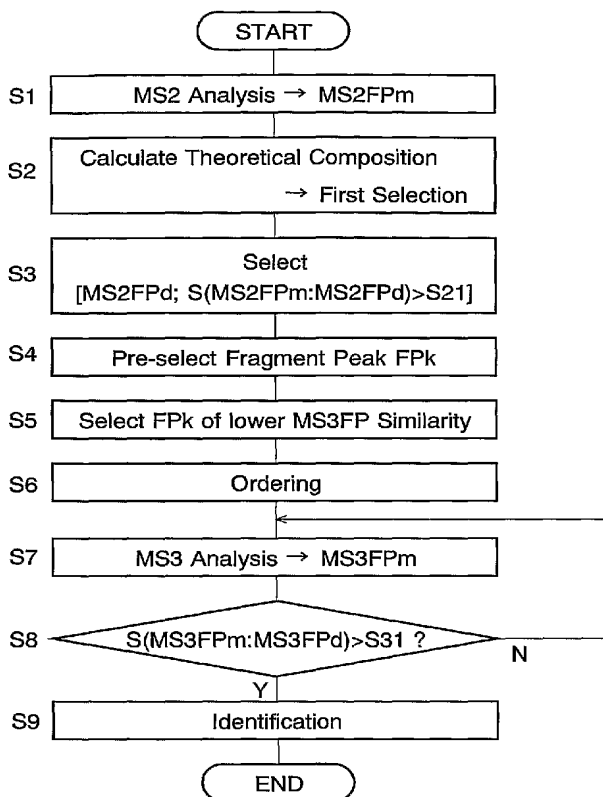
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[Continued on next page]

(54) Title: METHOD OF IDENTIFYING SUGAR CHAIN STRUCTURE AND APPARATUS FOR ANALYZING THE SAME



(57) Abstract: An object of the present invention is to provide a system for analyzing a sugar chain structure which can determine a complete primary structure of a sugar chain simply and rapidly with a small amount of sample. In a method of identifying an analysis-objective sugar chain structure using a mass spectrometer by comparing a measured MS3 fragment pattern with a reference MS3 fragment pattern stored in a database, where the measured MS3 fragment pattern is a fragmentation pattern of each MS2 fragment ion included in a measured MS2 fragment pattern obtained by subjecting the analysis-objective sugar chain to a fragmentation mass spectroscopy, the present invention is characterized in that, among a plurality of MS2 fragment ions included in a measured MS2 fragment pattern, a fragmentation mass spectroscopy is performed on only selected MS2 fragment ions, where each of the selected MS2 fragment ions has a plurality of reference MS3 fragment patterns stored in a database whose mutual similarity index is smaller than a predetermined value, wherein the plurality of reference MS3 fragment patterns have the same precursor ion mass to charge ratio as that of the selected MS2 fragment ion.

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